

MEMORANDUM

Date: October 1, 1998

Subject: Meeting Minutes - Revised Preliminary MACT Floors for Surface Coating Manufacturing Processes

From: Bill Gibbons and Reese Howle
Alpha-Gamma Technologies, Inc.

To: Miscellaneous Organic NESHAP Project File

I. Purpose

The purpose of this meeting was to brief the project regulatory team and interested stakeholders on the revised preliminary maximum achievable control technology (MACT) floors for surface coating manufacturing processes covered under the Miscellaneous Organic NESHAP (MON).

II. Location and Date

EPA - Mutual Building
Durham, North Carolina
September 17, 1998

III. Attendees

The following individuals were present in person at the meeting:

Creg Browne, Akzo Nobel Coatings;
Jim Sell, National Paint and Coatings Association (NPCA);
David Darling, NPCA;
Cynthia Dillon, Akzo Nobel Coatings;
Paul Jann, DuPont Engineering;
Robert Matejka, Akzo Nobel Coatings;
Adam Meister, Sun Chemical;
George Fuchs, National Association of Printing Ink Manufacturers (NAPIM);

Randy McDonald, EPA/ESD/OCG;
Reese Howle, Alpha-Gamma; and
Bill Gibbons, Alpha-Gamma.

In addition, the following individuals participated in the meeting via telephone:

Paul Robinson, Valspar Corporation;
Mark Collatz, Adhesives and Sealants Council (ASC);
Bob Nelson, NPCA;
Dave Mazzocco, PPG; and
Carl Schultz, DuPont.

IV. Discussion

Topics covered during the meeting were the revised preliminary MACT floors for surface coating manufacturing processes. Subcategorization of printing ink manufacturing was also discussed during this meeting. A copy of the briefing material is attached to this memorandum. The following paragraphs describe comments made during the meeting.

Storage Tanks. Dave Darling asked for a breakdown of the percent controlled storage tanks for each tank size category. Bill Gibbons explained that 3.3 percent of storage tanks in the 10,000 to 20,000 gallon size category have a MACT level of control, 5.3 percent of storage tanks in the 20,000 to 40,000 gallon size category have a MACT level of control, and no storage tanks greater than 40,000 gallons have controls .

Wastewater. Dave Darling asked about the origin of the 10,000 ppm limit. In particular, he wanted to know if this was an option above the floor. Bill Gibbons explained these limits are from the hazardous organic NESHAP (HON) wastewater standard. Mr. Darling asked why all the wastewater streams weren't considered when determining the MACT floor. Reese Howle explained this approach is a subcategorization of wastewater that has been used in several NESHAPs.

Dave Mazzocco asked what wastewater treatment was performed on the wastewater streams that were not doing off-site control. Bill Gibbons stated one facility used a treatment tank and another facility discharged the water to a publicly owned treatment works (POTW). Mr. Mazzocco asked if it was acceptable to recycle the wastewater as opposed to sending it off site. Dave Darling added that the surface coating manufacturing industry typically recycles wash solvent and wash water back

into production batches rather than treating these streams as wastewater. Mr. Darling thought the MON should allow this exclusion. Paul Jann thought this could be handled in the definition of wastewater.

Creg Browne asked how many facilities reported wastewater streams. Bill Gibbons stated that 17 facilities out of the 127 facilities in the database provided data on wastewater streams.

Dave Darling asked if 10,000 ppm was total HAP concentration or only the organic HAPs. Bill Gibbons explained this was total HAP concentration. Mr. Gibbons added the following HAPs were contained in the wastewater streams comprising the MACT floor: ethyl benzene, glycol ethers, methyl isobutyl ketone, toluene, xylene, and methyl ethyl ketone. Bob Nelson asked if this data came from the Section 114 surveys. Bill Gibbons stated that the data came from the 114 responses. Mr. Nelson added that in the past there had been data collection problems when evaluating wastewater for effluent guidelines. Carl Schultz noted that some of the HAPs mentioned are not very miscible in water and would float on top or evaporate off and would not stay in the water. Bob Nelson asked if the wastewater work done by the Office of Water was reviewed. Bill Gibbons stated this work had not been reviewed. Mr. Nelson added that the Office of Water considered two categories of wastewater, solvent wash and caustic water wash. He explained there are only effluent guidelines for solvent wash (zero discharge) and there are no effluent guidelines for caustic wash. Mr. Gibbons asked where this information could be located. Bob Nelson stated this was work done in the late 1970s. Randy McDonald asked Mr. Nelson to identify the location in the CFR of this effluent guideline.

Bob Nelson asked if the standard was a zero discharge standard, i.e., no discharge to a POTW. Randy McDonald stated this was correct for wastewater streams with a HAP concentration greater than 10,000 ppm. Creg Browne asked what was meant by off-site control. Mr. McDonald explained the MON would probably follow the HON, i.e., if the wastewater stream was complying with Resource Conservation and Recovery Act (RCRA) regulations, this would demonstrate compliance for MON. Mr. Browne asked what happens if the stream is not a RCRA waste. He wanted to know if the regulation would specify that the wastewater would have to go to a treatment, storage and disposal facility. Randy McDonald stated that the treatment method would be specified such that air emissions from the wastewater are not lost to the atmosphere. Creg Browne stated this appeared to be putting a MACT control on another industry. Mr. McDonald explained that EPA does not want air emissions from the wastewater displaced from one location to another location. Mr. Browne asked if the control could be done on site, if the control requirements were met. Randy McDonald noted that the HON wastewater regulation only applies after the last recovery device. He added that he envisioned a standard that would require facilities

with wastewater streams after the last recovery device with a HAP concentration greater than 10,000 ppm to meet the control requirements specified in the HON or, as in the pharmaceutical NESHAP, 99 percent control for partially soluble HAPs and 90 percent control for soluble HAPs. Creg Browne asked why the MACT floor was not expressed in this format. He thought that the MACT floor should specify a treatment level and then facilities would be given flexibility as to how to achieve this treatment level. Mr. McDonald agreed with this approach, though he did note that this seemed to be an unnecessary detail for now.

Paul Jann asked about the level of control represented by off-site control. Bill Gibbons responded that most of the facilities with off-site control had been contacted and these wastewater streams were being handled as RCRA waste. Bob Nelson asked if the wastewater was being incinerated. Mr. Gibbons stated this was the case and Randy McDonald added this was consistent with RCRA regulations. Dave Darling noted that the control efficiency for off-site control was not stated in the preliminary MACT floor. Creg Browne added that the preliminary MACT floor was a treatment method, not a treatment control efficiency. Mr. Browne and Paul Jann asked Alpha-Gamma to contact facilities to determine the exact processing and percent control. Alpha-Gamma agreed to make these phone calls. Carl Schultz stated that some of the wastewater may be going off-site to biodegradation ponds. Randy McDonald agreed the MACT floor needed to include a percent control.

Bob Matejka asked which test method was used to determine the 10,000 ppm concentration. Reese Howle thought the appropriate EPA Method was Method 25D. Paul Jann added that Method 25D is used to determine volatile organic HAP (VOHAP) content. Randy McDonald indicated that calculations could be used to determine applicability. Mr. Jann and Creg Browne thought respondents used standard analytical methods such as gas chromatography or gas chromatography and spectroscopy. Bob Matejka asked if the HAP concentration would be only VOHAPs or all HAPs. Mr. McDonald stated the applicability would be determined based on total HAP concentration for all organic HAPs.

Mr. Matejka asked how compliance by dilution would be prevented. Randy McDonald stated that the pharmaceutical NESHAP addressed this by limiting the applicability to the first and second wash water. Paul Jann added that language could be put into the rule stating dilution is not allowed to avoid applicability. Dave Darling asked Mr. McDonald to explain what he meant by the first and second wash. Randy McDonald explained that wastewater from the first and second rinse in a pharmaceutical process was used to determine the concentration. Dave Mazzocco asked for further explanation. Mr. Mazzocco wanted to know if water had to be considered wastewater after the second rinse. He added that usually this water is recycled several times to do washes in the surface coating manufacturing industry. Mr.

McDonald stated that since this is a recycling process, this would not be where the HAP concentration is measured. He added that the concentration would be measured when the wastewater is disposed. He also suggested that industry representatives review the language in the HON and the pharmaceutical NESHAP to look at the definition of an affected wastewater stream. Dave Mazzocco suggested this language should be reviewed by industry to make sure no clarifications or modifications are needed for the surface coating manufacturing industry.

Mr Mazzocco asked about wastewater streams with HAP concentrations less than 1,000 ppm. Bill Gibbons stated the MACT floor is no control for these wastewater streams. Reese Howle added that data were collected only for wastewater streams with a HAP concentration greater than or equal to 1,000 ppm.

Equipment Leaks. Dave Mazzocco asked what was meant by "full records" for an inspection. Bill Gibbons explained this meant the inspection was documented (i.e., an inspection was completed; documentation is not required for each pump, valve, flange, etc.). Randy McDonald added that the Office of Enforcement and Compliance Assurance (OECA) would probably require a log book. He also stated that the Gasoline Distribution NESHAP required a log book. Mr. Mazzocco asked EPA and Alpha-Gamma to consider the impact a monthly leak detection and repair (LDAR) program would have on a paint manufacturing facility. He added that EPA and Alpha-Gamma should look at this when they visit the PPG Industries facility in Cleveland, OH on September 21, 1998. Dave Darling asked if EPA had looked at the LDAR program proposed by NPCA, a semi-annual sensory LDAR program. Randy McDonald stated he did look at the NPCA's proposal. Paul Jann added that facilities would have the flexibility to determine how to perform the inspection. Dave Mazzocco commented it might be difficult to document the inspection. Mr. Jann noted the log book for each area might be sufficient documentation if the leak inspection is being noted in the log book. Creg Browne expressed a concern that not all facilities use log books. Paul Jann explained there may be options to show compliance besides one person walking around the facility performing a sensory inspection each month. Dave Mazzocco stated he would prefer to clarify these issues now since he and many of the people involved in the meeting will be responsible for implementing the LDAR program. Paul Jann suggested industry representatives get together to discuss and clarify how to implement the monthly sensory LDAR program. Randy McDonald suggested that the industry representatives look at 40 CFR 63, Subpart R, Gasoline Distribution NESHAP.

Process Tanks. Paul Jann asked if the survey specified or defined a portable tank. Creg Browne explained the survey had tank size ranges and tanks were designated as "P" for portable tanks and "S" for stationary tanks. Mr. Jann explained

that barges and marine vessels were considered portable tanks in the HON. Reese Howle added that data were collected only for process tanks with a capacity greater than or equal to 250 gallons.

Dave Darling asked how many tanks could be combined for emissions averaging. Randy McDonald stated that emissions averaging could be done over 20 tanks. Mr. Darling explained that surface coating manufacturing facilities are different than HON facilities. He suggested that emissions averaging for 20 process tanks is not reasonable for this industry. Carl Schultz added that one building may have 40 to 50 process tanks and he thought it would not be logical or cost effective to have three separate incinerators to control the emissions from the process tanks in this building. Mr. Schultz suggested that the standard specify the level of emission reduction while allowing facilities the flexibility to determine how to achieve this emission reduction. Dave Darling stated he had looked at the data and calculated an average of 70 to 80 process tanks per facility. Jim Sell suggested it would be useful to go back and look at the underlying rationale for the limit of 20 sources for emissions averaging. Mr. Sell pointed out that the reasoning may not apply to the surface coating manufacturing industry. Randy McDonald agreed to go back and look at this rationale. He added that the 20 points used for emissions averaging was done in a regulatory negotiation. He added that some standards have been able to change some provisions, but he wasn't sure there was a lot of flexibility to allow more than 20 emissions points for averaging. Paul noted that the emissions averaging is allowed for 20 emission points, not 20 emission sources. He explained that if 10 process tanks are ducted to a common header and emitted out one vent, this is considered one emission point, not ten emission points. Carl Schultz liked this approach. Randy McDonald stated it would depend on how the standard was written; e.g., the HON was written on a vent basis. Mr. Jann explained that the HON allowed emissions averaging over 20 emission points and that each emission point is not necessarily a single emission source. He added that emission sources could be manifolded together and counted as one emission point in the HON. Adam Meister pointed out that the ability to manifold sources together could be done as long as contamination between process tanks wasn't a problem. He added that this is often the case in the printing ink manufacturing industry. Mr. Meister also stated he liked Carl Schultz's idea to specify an emission reduction level in the standard while giving facilities the flexibility to determine how to achieve this emission reduction. Randy McDonald suggested facilities would have an easier time showing compliance on a tank basis, unless every facility has tens of process tanks. Dave Darling reiterated that the surface coating manufacturing industry would prefer the ability to average more than 20 process tanks when doing emissions averaging. Adam Meister stated he was in favor of bubbling, i.e., emissions averaging for the entire facility. Mr. Meister would prefer a standard that required an overall emission reduction

from stationary process tanks greater than or equal to 250 gallons with the flexibility of how to achieve the reduction.

Dave Darling asked if vapor balancing could be used as a control technology. Creg Browne explained that vapor balancing keeps the emissions on site and it is a viable technology used within the industry. Paul Jann stated that tank trucks that collect vapors from tanks in non-attainment areas are required to control the collected vapors. Mr. Darling added that the organic liquid distribution (OLD) NESHAP should require controls on emissions from tank trucks. Creg Browne and Dave Darling added that the industry would prefer to have vapor balancing as a possible control strategy. Randy McDonald stated he didn't have a problem with vapor balancing if the collected vapors were controlled off-site. Mr. Darling asked how industry would demonstrate compliance. Mr. McDonald stated that if the OLD was in place and emissions from tank trucks were covered, this could be referenced in the standard. He added that vapor balancing to a tank truck that has no control is not allowed in any NESHAP. He also noted that this approach brings in another standard, which could be a problem. Dave Darling asked if emissions credit could be given for vapor balancing on storage tanks. Randy McDonald encouraged the industry representatives to look at the emissions averaging methodology in the pharmaceutical NESHAP. He added that the methodology was developed by industry and was tailored to the industry.

Mr. Darling asked if a facility would have the option to comply with the HON new source standards instead of the MON new source standards, if this was less burdensome on the facility. Paul Jann added that many MON processes are co-located at facilities with HON processes and the surface coating manufacturing industry would like the flexibility to comply with the HON new source standards. Randy McDonald noted that the pharmaceutical NESHAP General Standards states that compliance with RCRA is compliance with the pharmaceutical NESHAP. Dave Darling stated that the primary concern was with recordkeeping and reporting requirements. Mr. McDonald explained that OECA has stated that the facility must use the most stringent reporting and recordkeeping when compliance with multiple standards is combined.

Dave Darling asked if there would be any emission control efficiency assigned to a cover since the EPA document, "Control of VOC Emissions from Ink and Paint Manufacturing Processes", EPA-450/3-92-013, indicates a control efficiency for covers from 40 to 96 percent. Randy McDonald explained that the floor already accounted for a cover. Mr. McDonald encouraged the industry representatives to look at reductions in emissions because of reduced solvent usage and other pollution prevention efforts. Bob Matejka asked if emission reduction could be given for a sealed cover. Dave Darling thought industry representatives should discuss this option. Randy McDonald added that assigning a control efficiency to covers brings up the issue of capture efficiency. Mr. McDonald thought that vapor balancing within the facility together with a

final control device for the collected vapors looked like a good control strategy for this industry.

Dave Darling asked if the standard would allow existing control devices to be “grandfathered”. For example, if a facility has a condenser that was providing 55 percent emission control and the standard required 60 percent control, would the facility be required to replace the existing condenser with a new condenser? Randy McDonald stated he had considered this and thought one way to handle this would be to set a condenser exit temperature. Mr. McDonald also stated the condenser exit temperature could be specified in the monitoring and recordkeeping portion of the rule. Dave Darling asked if industry representatives could propose a condenser exit temperature. Randy McDonald encouraged industry representatives to focus on setting the MACT floor first and then determining how to meet the MACT floor.

Printing Ink Manufacturing Subcategorization. Randy McDonald asked Adam Meister and George Fuchs what they thought about not subcategorizing printing ink manufacturing. Mr. Meister and Mr. Fuchs agreed printing ink manufacturing should not be subcategorized.

Options Above the Floor. Dave Darling asked about possible options above the MACT floor. Mr. McDonald thought the following were possible options above the MACT floor:

- a. Storage tanks - For tanks greater than 20,000 gallons with a HAP vapor pressure greater than or equal to 2.0 psia, control with an internal or external floating roof or venting to a control device with greater than or equal to 95 percent control.
- b. Equipment leaks - Didn't see any reasonable incremental cost effectiveness above the MACT floor.
- c. Wastewater - Not much more that could be done.
- d. Process tanks - Probably difficult to cost justify control above the 60 percent control in the MACT floor.

Dave Darling asked who decides on the options above the floor. Randy McDonald explained this is determined based on the data and an incremental cost effectiveness analysis.

New Source Standard. Randy McDonald stated there could be classes of

sources that would define the "best controlled similar source" for the surface coating manufacturing industry. Mr. McDonald indicated there could be different new source standards for different source classes. Bob Matejka added that a new source for a facility making coil coatings would probably have control with a thermal oxidizer, but a new facility making water-based house paint would probably have no control. Creg Browne agreed the industry should be segmented to look at different types of new source controls for different types of coatings. Randy McDonald indicated the MACT for existing sources might be the new source standard for some sources.

V. Action Items

The following is the list of action items from the meeting.

NPCA will:

Provide Randy McDonald with a copy of the effluent guideline citation which requires no discharge of solvent wash.

NPCA, NAPIM, ASC, and industry representatives will:

1. Review the revised MACT floor memorandum and provide feedback to EPA within 30 days.
2. Review emissions from water-based products and suggest an exemption for water-based coatings.
3. Evaluate the effect of 60 percent control of stationary process tanks greater than or equal to 250 gallons on the industry.

Alpha-Gamma will

1. Contact facilities that perform off-site control to determine the control method and the percent control.
2. Determine the methods facilities used to measure wastewater HAP concentrations.
3. Determine the number of process tanks per facility.

EPA will:

Review the background of emissions averaging for only 20 points. The Office of General Council will also be contacted.

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Surface Coating Manufacturing Processes
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ATTACHMENT